

**REMARKS**

Claims 1-8, 19-52, 54, 55, 66-83, 94-101 and 112-127 are currently pending in the application. By this amendment, Applicant has amended claims 1, 19, 27, 35, 45, 66, 76, 94, 112 and 120, canceled claims 2-6, 20-24, 28-32, 38-42, 46-50, 69-73, 77-81, 95-99, 113-117 and 121-125 herein without prejudice or disclaimer, and added new claim 128. Applicant respectfully requests reconsideration of the application in view of the above amendments and remarks as set forth below.

**35 U.S.C. § 103(a) Obviousness Rejections****Obviousness Rejection Based on U.S. Patent No.6,728,208 to Puuskari.**

Claims 1, 2, 5-8, 19, 20, 23-28, 31-38, 41-46, 49-52, 54, 55, 66-69, 72-77, 80-83, 94, 95, 98-101, 112, 113, 116-121, and 124-127 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants' admitted prior art in view of Puuskari (U.S. Patent No. 6,728,208). Applicants respectfully traverse this rejection

M.P.E.P. 706.02(j) sets forth the standard for a Section 103(a) rejection:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, **the prior art reference (or references when combined) must teach or suggest all the claim limitations.** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (Emphasis added).

The 35 U.S.C. § 103(a) obviousness rejections of the aforementioned claims are improper because the elements for a *prima facie* case of obviousness are not met. Specifically, the rejection fails to meet the criterion that the prior art reference must teach or suggest all the claims limitations.

Applicants' invention, as presently claimed in the independent claims, recites among other matters:

Claim 1. ... **differentiating** the endpoints of the first Point-to-Point Protocol link and the second Point-to-Point Protocol link **using a link characteristic.**

- Claim 19. ... **differentiating** the endpoint of each Point-to-Point Protocol session in the set **using a session link characteristic**.
- Claim 27. ... **differentiating** the endpoint of each Point-to-Point Protocol sessions **using a session link characteristic**.
- Claim 35. ... **differentiating** the endpoint of each of the multiple Point-to-Point Protocol sessions **using a session link characteristic**.
- Claim 45. ... **differentiating** the endpoints of the first Point-to-Point Protocol link and the second Point-to-Point Protocol link **using a link characteristic**.
- Claim 66. ... **differentiating** the endpoints of the first Point-to-Point Protocol link and the second Point-to-Point Protocol link within the wireless device **using a link characteristic**.
- Claim 76. ... **differentiating** endpoints of the Point-to-Point Protocol sessions **using a session link characteristic**.
- Claim 94. ... **differentiating** the endpoints of the first Point-to-Point Protocol link and the second Point-to-Point Protocol link **using a link characteristic**.
- Claim 112. ... **differentiating** the endpoint of each Point-to-Point Protocol sessions in the set **using a session link characteristic**.
- Claim 120. ... **differentiating** the endpoint of each Point-to-Point Protocol sessions **using a session link characteristic**.

In contrast to Applicants' claimed invention including the limitations of "differentiating ... using a [] **link** characteristic", the Puuskari reference teaches or suggests differentiating based upon a **data** characteristic. Specifically, the Puuskari reference teaches or suggests "each data packet is arranged to carry at least one QoS parameter, and **the scheduling and the policing** of the transmission of the data packets is made in packet by packet basis **according to this QoS information in the packets**". (Puuskari, col. 4, lines 16-20; emphasis added.) Additionally, the Puuskari reference fails to teach differentiating based upon link characteristics including at least one of a compression type, encryption level, Radio Link Protocol transmission delay, and guaranteed delivery level as set forth by the independent claims as amended.

Therefore, since the Puuskari reference does not teach or suggest Applicants' claimed invention including "differentiating ... using a [] **link** characteristic", the Puuskari reference cannot render obvious Applicants' invention as presently claimed in independent claims 1, 19, 27, 35, 45, 66, 76, 94, 112, 120. Accordingly, Applicants respectfully request the rejections of independent claims 1, 19, 27, 35, 45, 66, 76, 94, 112, 120 be withdrawn.

The nonobviousness of independent claims 1, 19, 27, 35, 45, 66, 76, 94, 112, 120 preclude a rejection of claims 7-8, 25-26, 33-34, 36-37, 43-44, 51-52, 54-55, 67-68, 74-75, 82-83, 100-101, 118-119 and 126-127 which depend therefrom because a dependent claim is

obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03.

Therefore, Applicants request that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejection to independent claims 1, 19, 27, 35, 45, 66, 76, 94, 112, 120 and claims 7-8, 25-26, 33-34, 36-37, 43-44, 51-52, 54-55, 67-68, 74-75, 82-83, 100-101, 118-119 and 126-127 which depend therefrom.

Furthermore, the 35 U.S.C. § 103(a) obviousness rejections of claims 1, 7-8, 19, 25-27, 33-37, 43-45, 51-52, 54-55, 66-68, 74-76, 82-83, 94, 100-101, 112, 118-120 and 126-127 are improper because they do not teach or suggest the claim elements in as complete detail as is claimed in the invention. Specifically, the Puuskari reference does not teach or suggest the claim limitations of PPP sessions in as complete detail as is contained in the claim. In the Examiner's Response to Arguments in the Final Office Action, the Final Office Action alleges:

While Puuskari is expressly directed to PDP contexts, Puuskari explicitly states that “[t]his concept of the invention may applied [sic] in any packet data communications network, even in one not using any PDP context, such as TCP/IP” (col. 5, lines 13-16). (Final Office Action, p. 2; emphasis added.)

Such a gratuitous teaching or suggestion that “may [be] applied in any packet data communications network, even in one not using any PDP context” does not rise to a “teaching or suggestion” as is required for a prima facie case of obviousness under 35 U.S.C. § 103. Accordingly, Applicants respectfully request the rejections be withdrawn.

Furthermore in the Response to Arguments in the Final Office Action, the allegation that “[t]his concept of the invention may [be] applied in any packet data communication network, even in one not using any PDP contexts” (col. 5, lines 13-15) does not apply to the “concept” as alleged in the Final Office Action, but rather applies to the concept preceding the statement in the Puuskari reference, namely, the concept of distributing transmission over connection and connectionless paths depending on the necessary reliability. Specifically, the Puuskari reference recites:

The data packets **requiring reliable** transmission, should be sent over a **reliable connection-oriented path**. The data packets that do **not require reliable** connection-oriented path, should be sent over **connectionless path**. Both the connection-oriented and the connectionless path can be established to transfer packets of only one PDP tunnel or they can be used by several PDP tunnels. Furthermore, **the establishment of different paths with different reliabilities** can be dynamic or static (i.e. on demand or when the tunnel (PDP context) is created). **This concept of the invention may [be] applied** in any packet data communications network, **even in one not using any PDP**

**context**, such as TCP/IP, ATM, or X.25 network. (Puuskari, col. 5, lines 4-15; emphasis added).

Therefore, since the Puuskari reference does not teach or suggest Applicants' claimed invention including "differentiating ... using a [] **link** characteristic including at least one of a compression type, encryption level, Radio Link Protocol transmission delay, and guaranteed delivery level as set forth by the independent claims as amended, the Puuskari reference cannot render obvious, under 35 U.S.C. §103, Applicants' invention as presently claimed in independent claims 1, 19, 27, 35, 45, 66, 76, 94, 112, 120. Accordingly, Applicants respectfully request the rejections of independent claims 1, 19, 27, 35, 45, 66, 76, 94, 112, 120 (and 7-8, 25-26, 33-34, 36-37, 43-44, 51-52, 54-55, 67-68, 74-75, 82-83, 100-101, 118-119 and 126-127 which depend therefrom) be withdrawn.

Obviousness Rejection Based on Applicants' Admitted Prior Art in view of Puuskari and further in view of U.S. Patent No.6,765,909 to Sen et al.

Claims 3, 21, 29, 39, 47, 70, 78, 96, 114, and 122 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants' admitted prior art in view of Puuskari and further in view of Sen et al.(U.S. Patent No. 6,765,909). Applicants respectfully traverse this rejection.

The Examiner states "Applicant in view of Puuskari does not expressly disclose that the link characteristic is compression type; however, Applicant in view of Puuskari does suggest that various characteristics could be used (Puuskari: col. 5, lines 19-26)" (Office Action page 7, paragraph 18). The Puuskari reference merely states "The PDP context may or may not include also one or more QoS parameters". This broad statement that the PDP context may or may not include one or more QoS parameters in no way suggests or motivates the reader to modify the reference or to combine reference teachings. Rather Puuskari expressly suggests "mean and peak bit rate for the whole PDP context might or might not be used" (Puuskari: col. 5, lines 24-25). Puuskari's express disclosure of alternative QoS parameters suggests that an all inclusive set of QoS parameters has been presented.

The Examiner further states "Sen discloses, in a system for supporting multiple QoS levels in a 3G packet data session, that PPP supports different types of compression schemes that can be used to distinguish one connection from another" (Office Action page 7, paragraph 18). While Sen does teach measuring and providing specific levels of quality of communication

within a wireless network, Sen in no way teaches different types of compression schemes that can be used to distinguish one connection from another utilizing an identical IP address. Rather the Sen reference merely states that “PPP supports Van-Jacobsen header compression which is a technique used to shrink 40 byte headers of TCP packets to as little as two to four bytes” (Sen: col. 2, lines 36-38). This reference merely teaches that V-J compression can be used in PPP and thus fails to teach that PPP supports different compression schemes that can be used to distinguish one connection from another utilizing the identical IP address. The Sen reference also discloses that “A PPP frame is capable of containing packets from other protocols including IP” (Sen: col 2, lines 39-40). The teaching that a PPP frame can contain packets from other protocols fails to teach that PPP supports different compression schemes that can be used to distinguish one connection from another. Rather, this reference teaches placing IP packets into a PPP frame “by adding a protocol field to the frame definition that identifies the type of data packet being carried by the frame” (Sen: col. 2, lines 38-41). Sen further discloses:

The identifier scheme may be modified to include support for compressed RTP/UDP/IP headers as well. If the PDSN supports IP header compression ( a general framework incorporating TCP/IP and RTP/UDP/IP headers) and IP header compression for PPP, this scheme can be extended to *differentiate between TCP/IP header compressed packets and RTP/UDP/IP header compressed packets within the same PPP session* (Sen, col. 6, lines 39-45; emphasis added).

The Sen reference does not teach that different types of PPP compression schemes can be used to distinguish one connection from another utilizing the identical IP address. Rather Sen teaches that header compression can be used to differentiate between TCP/IP header compressed packets and RTP/UDP/IP header compressed packets, not differentiating the endpoints of the first PPP link and the second PPP link as claimed in the present invention. Further Sen teaches differentiating TCP/IP header compressed packets and RTP/UDP/IP header compressed packets *within the same PPP session*, not multiple PPP instances. In contrast the present invention, which teaches a method for utilizing a single IP address for multiple PPP instances by way of differentiating the end points based on the compression type.

Therefore, even if there were some suggestion or motivation to modify the reference or combine reference teachings, the combination of Puuskari and Sen fails to teach or suggest all the claimed limitations. Thus based upon the lack of motivation for combination of the cited references along with the failure to teach all the claimed limitations in the combined references,

Applicants request that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejections in view of Puuskari and further in view of U.S. Patent No. 6,765,909 to Sen et al.

Obviousness Rejection Based on Applicants' Admitted Prior Art in view of Puuskari and further in view of U.S. Patent No. 6,400,722 to Chuah et al.

Claims 4, 22, 30, 40, 48, 71, 79, 97, 115, and 123 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants admitted prior art in view of Puuskari. (U.S. Patent No. 6,728,208) in view of Chuah et al. (U.S. Patent No. 6,400,722). Applicants respectfully traverse this rejection, as hereinafter set forth.

The Examiner states "Puuskari does not expressly disclose that the link characteristic is encryption level; however, Applicant in view of Pusskari does suggest that various characteristics could be used (Puuskari: col. 5, lines 19-26)" (Office Action page 8, paragraph 20). The Puuskari reference merely states "The PDP context may or may not include also one or more QoS parameters". This broad statement that the PDP context may or may not include one or more QoS parameters in no way suggests or motivates the reader to modify the reference or combine reference teachings. Rather Puuskari expressly suggests "mean and peak bit rate for the whole PDP context might or might not be used" (Puuskari: col. 5, lines 24-25). Puuskari's express disclosure of alternative QoS parameters suggests that an all inclusive set of QoS parameters has been presented.

The Examiner further states "Chuah teaches, in a wireless system supporting PPP and IPCP (col. 10, lines 33-45 and col. 11, lines 21-42), that PPP packets can be encrypted before being encapsulated in RLP if encryption is negotiated between the mobile user and the home agent (col. 29, lines 48-59)" (Office Action page 8, paragraph 20). Chuah teaches "If encryption is negotiated between the end system and the home agent, then the complete PPP frame is so encrypted before encapsulation in RLP" (col. 29, lines 57-59). The Chauh reference does not teach that different levels of PPP encryption can be used to distinguish one connection from another utilizing the identical IP address. Rather Chauh merely teaches that a PPP frame can be encrypted as negotiated by the end system and the home agent. Chauh fails to teach or suggest in any way the possibility of utilizing a single Internet Protocol Address for multiple PPP instances between a single wireless device and a wireless network. Further Chauh fails to teach the use of encryption level to differentiate the endpoints of multiple PPP links. In contrast the

present invention teaches a method for utilizing a single IP address for multiple PPP instances by way of differentiating the end points based on the encryption level.

Therefore, even if there were some suggestion or motivation to modify the reference or combine reference teachings the combination of Puuskari and Chauh, the combination fails to teach or suggest all the claimed limitations. Thus based upon the lack of motivation for combination of the cited references along with the failure to teach all the claimed limitations in the combined references, Applicants request that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejections in view of Puuskari and further in view of U.S. Patent No.6,400,722 to Chauh et al.

**REQUEST FOR ALLOWANCE**

In view of the foregoing, Applicant submits that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

Dated February 14, 2007

:

By: /George J. Oehling/

\_\_\_\_\_  
George J. Oehling, Reg. No. 40,471  
(858) 658-1761

QUALCOMM Incorporated  
Attn: Patent Department  
5775 Morehouse Drive  
San Diego, California 92121-1714  
Telephone: (858) 658-1761  
Facsimile: (858) 658-2502